Determination of Public Land (Rangeland) Health for 64054 EH CATTLE CO

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the public land within the EH Cattle Co. allotment #64054 meets the Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land riparian areas on this allotment, therefore this standard was not addressed.

/s/ T. R. KREAGER	07/21/2004
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 64054 EH CATTLE CO Allotment
[01/05/2004]

The Roswell Field Office conducted rangeland health assessments at one study site within the EH Cattle Co. allotment #64054. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64054-#1-E101	X			X			N/A		

Twenty-two indicators for Rangeland Health were evaluated for the public land on EH Cattle Co, allotment #64054. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous monitoring data collected on 5 range trend plot locations within the allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell field office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections which were initiated in the late 1970's/early 1980's are scheduled and conducted approximately every 5 years.

The dry conditions occurring over the last several years have impacted this allotment and surrounding area. The soil is a Hollomex series on a nearly level to gently rolling aspect. The Hollomex series supports a Gyp Upland SD-3 ecological on the upper terraces; however on the lower areas a Salt Flat SD-3 ecological site is common.

The indicators for soil attributes rated none to slight and slight to moderate categories; the hydrology attributes were also none to slight and slight to moderate categories; and the biotic attributes in general followed suite, however, the annual production indicator rated as moderate.

Based on the available long term monitoring this site is in an upward trend. Both vegetative production and ground cover have been affected by the recent drought period, however, this site is till in good condition.

Wildlife - Evaluation of the integrity of the biotic community considered several indicators as attribute indices for the area of interest. Biotic indicators are interrelated with several other indicators, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as functional/structural groups, annual production and invasive plants, as discussed above. In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation.

Specifically, only one biotic indicators fell within the Moderate rating; annual production, although it was noted that goldenrod would be the invasive plant that may cause problems in the future. Considering present climate regimes, annual production can be expected to fall within the normal range of variability.

Current observed wildlife habitat conditions are being maintained. Impacts from oil and gas development indicate habitat fragmentation could occur in this relatively undisturbed area. With respect to Special Status Species, none are known to occur in the area of interest at this time and the Habitat and Population indicators are, therefore, rated None to Slight. It should be noted that the area of concern does fall within the boundary of the Pecos Gambusia Habitat Protection Zone due to the movement of groundwater supplying springs at the Bitter Lake National Wildlife Refuge.

Hydrology - Pasture #1 - The rills, water flow patterns, pedestals and/or terracettes, bare ground, gullies, wind scoured, blowouts, and or deposition areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount, and physical/chemical/biological crusts indicators have rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary alluvial deposits and Quaternary terrace gravel deposits outcrop in the area.

Recommendations:

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64054-#1-E101			
Legal Land Desc	SWSE 23 0090S 0240E Meridian 23	Acreage	360
Ecosite	042CY036NM SALT FLATS SD-3	Photo Taken	Y
Watershed	13060007010 GOPHER		
Observers	SCHMIDT/BAGGAO	Observation Date	01/22/2004
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HhA	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX
Texture Modifier	NM644 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	11.25	NOAA Growing Season Precipitation	7.64
NOAA Avg Annual Precipitation	13.55	NOAA Avg Growing Season Precipitation	11.18
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground					X

Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups					X
Comments:						
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount					X
Comments:						
B	Annual Production			X		

Comments:						
B	Invasive Plants				X	
Comments:						
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat					X
Comments:	Open grassland habitat type. Species of concern include pronghorn antelope and a variety of non-game wildlife species, grassland raptors such as Northern harriers and Swainson's hawk. Increasing oil and development in the area which include oil pads and pipeline rights-of-way.					
B	Wildlife Populations				X	
Comments:	An exisiting pronghorn antelope herd has inhabitated the area for many years and has been reported as being a problem to the current allottee as irrigated croplands are being maintained. Trapping efforts have been conducted by NMDGF to relocate animals.					
B	Special Status Species Habitat					X
Comments:	None know to occur, although the lands are included as part of the Pecos Gambusia Habitat Protection Zone due to subsurface water concerns (groundwater movement to the Bitter Lake national Wildlife Refuge).					
B	Special Status Species Populations					X
Comments:	None know to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

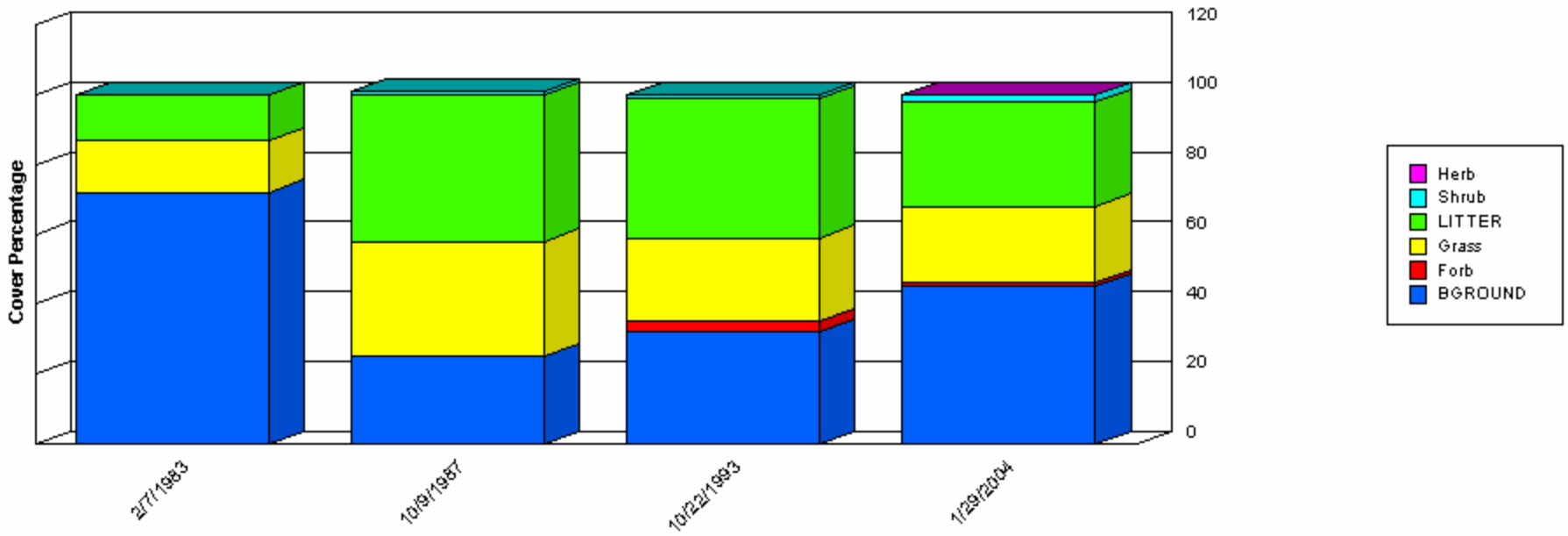
			Extreme		e	Slight
S	Soil	0	0	0	3	7
H	Hydrologic	0	0	0	3	8
B	Biotic	0	0	1	4	8

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	1	12

Site Notes:

Ground Cover Trends



	2/7/1983	10/9/1987	10/22/1993	1/29/2004
BGROUND	72.00	25.00	32.00	45.00
Forb	0.00	0.00	3.00	1.00
Grass	15.00	33.00	24.00	22.00
Herb	0.00	0.00	0.00	0.00
LITTER	13.00	42.00	40.00	30.00
Shrub	0.00	1.00	1.00	2.00
Total	100.00	101.00	100.00	100.00

Report Parameters

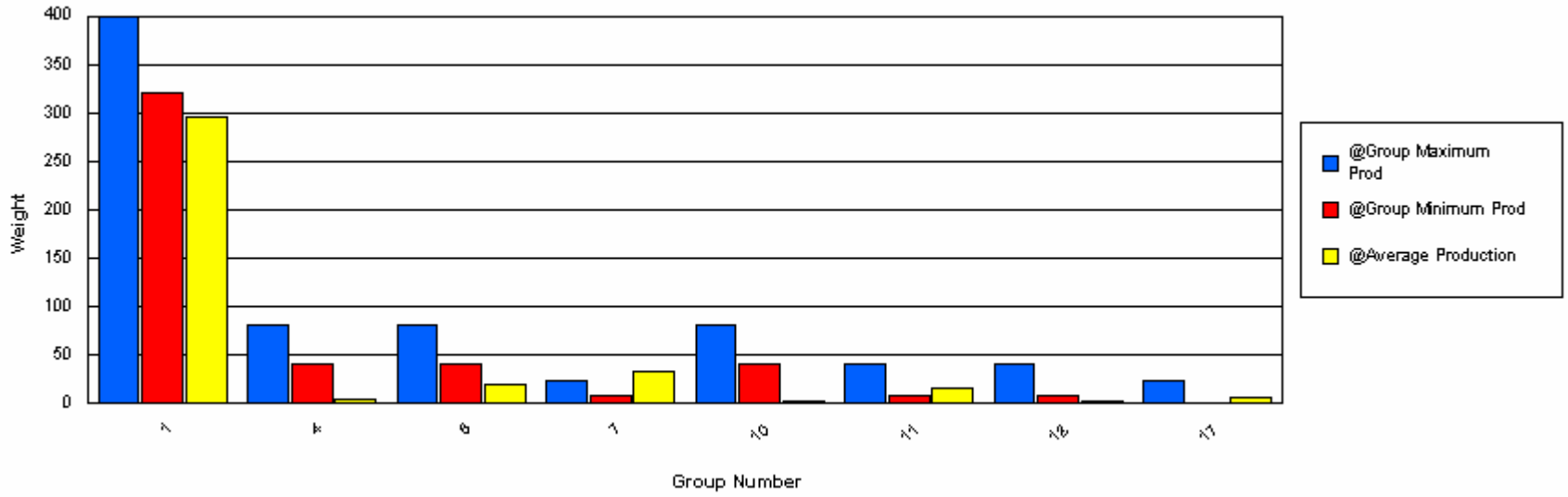
SITE NAME LIKE	64054-#1-E101
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

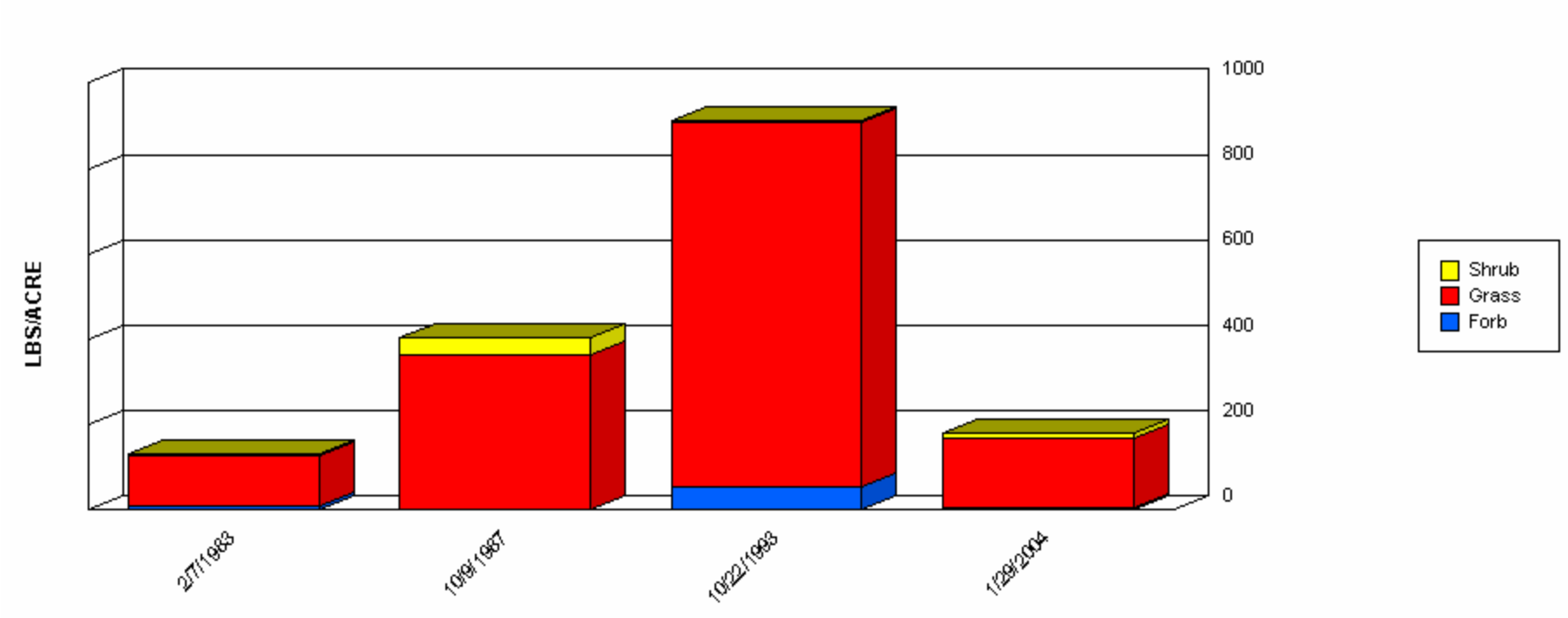
Report Parameters	
SITE NAME LIKE	64054-#1-E101
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY036NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	SPAI	320	400	103.87	641.00	294.97	219.48
4	Grass	SPNE	40	80	3.00	6.00	4.27	1.27
6	Grass	ARIST	40	80	0.00	3.00	1.67	1.25
6	Grass	HIMU2	40	80	1.00	30.26	15.63	14.63
6	Grass	SCBR2	40	80	1.21	4.00	2.40	1.17
7	Grass	BOGR2	8	24	0.00	15.00	8.25	6.06
7	Grass	MUAR	8	24	0.00	1.00	0.50	0.50
7	Grass	PAHA	8	24	5.00	24.00	14.50	9.50
7	Grass	TRPI2	8	24	1.00	18.00	9.50	8.50
10	Forb	PENA	40	80	1.33	2.00	1.67	0.34
11	Forb	AAFF	8	40	0.00	56.00	15.25	23.57
11	Forb	DEPI	8	40	0.00	0.00	0.00	0.00
12	Forb	LESQU	8	40	0.00	1.00	0.50	0.50
12	Forb	SOEL	8	40	0.00	1.00	0.50	0.50
17	Shrub	GUSA2	0	24	0.00	21.00	6.25	8.58

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends



	2/7/1983	10/9/1987	10/22/1993	1/29/2004
Forb	**8.00**	**1.00**	**56.00**	**5.96**
Grass	**121.00**	**363.00**	**852.00**	**161.21**
Shrub	**3.00**	**39.00**	**3.00**	**12.00**
Total	**132.00**	**403.00**	**911.00**	**179.17**

Report Parameters

SITE NAME LIKE	64054-#1-E101
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

NM060

Date Printed: 4/15/200

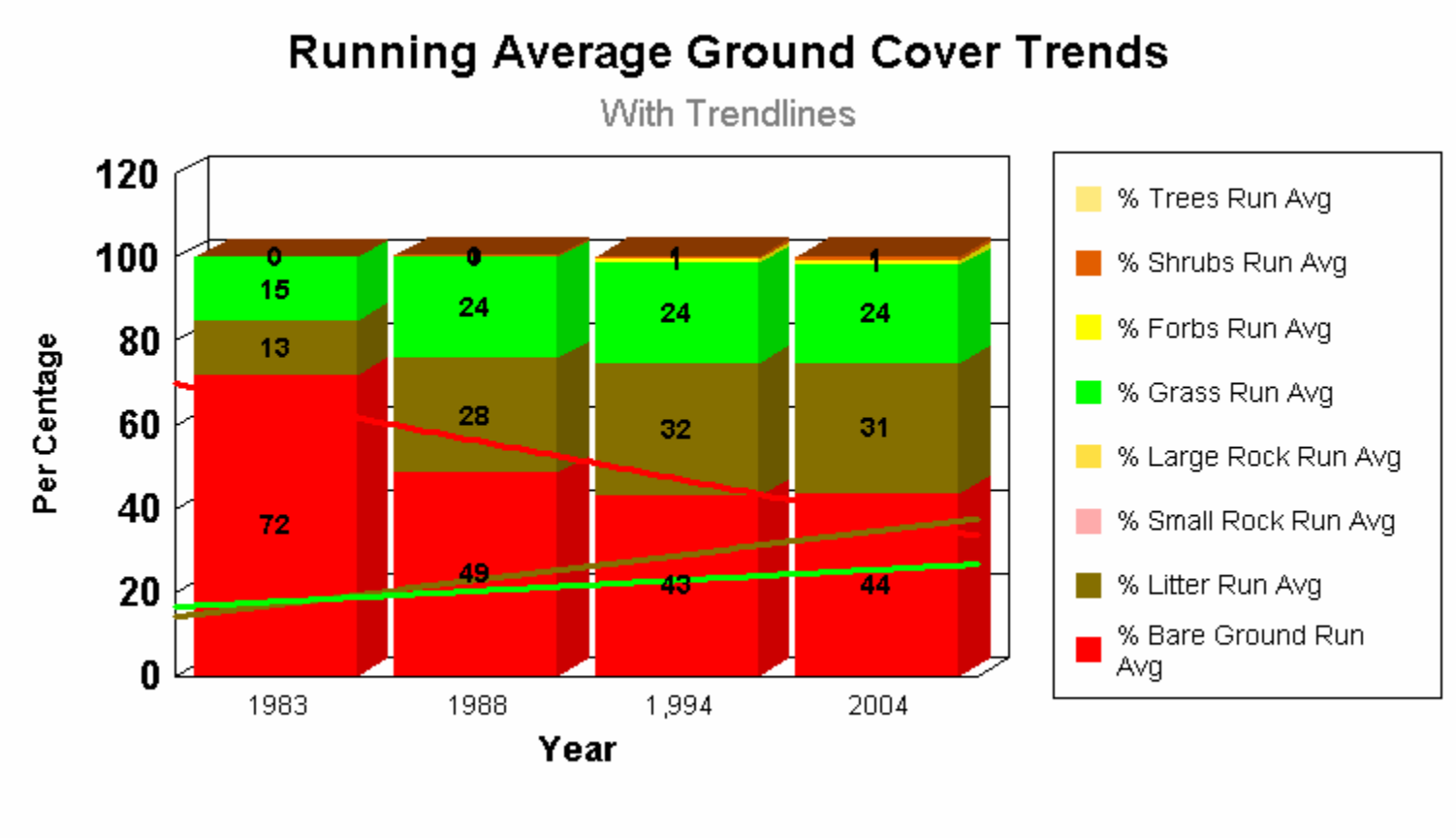
64054 HAYSTACK AGRI CO #1

Vegid#: 622

64054-#1-E101 Ecological Site No.: 042CY036NM

Location: Township: 0090S Range 0240E Section 23 QtrQtr: SWSE

Year	Bare Ground	Litter	Small Rock	Large Rock	Forbs	Grass	Shrubs	Trees	Running Average Bground	Running Average Litter	Running Average Srock	Running Average Lrock	Running Average Forb	Running Average Grass	Running Average Shrubs	Running Average Trees
1983	72.00	13.00			0	15.00	0.00		72.00	13.00			0	15.00	0.00	
1988	25.00	42.00			0	33.00	1.00		48.50	27.50			0	24.00	0.50	
1994	32.00	40.00			3.00	24.00	1.00		43.00	31.67			1.00	24.00	0.67	
2004	45.00	30.00			1.00	22.00	2.00		43.50	31.25			1.00	23.50	1.00	



Production (lbs/ac) Data

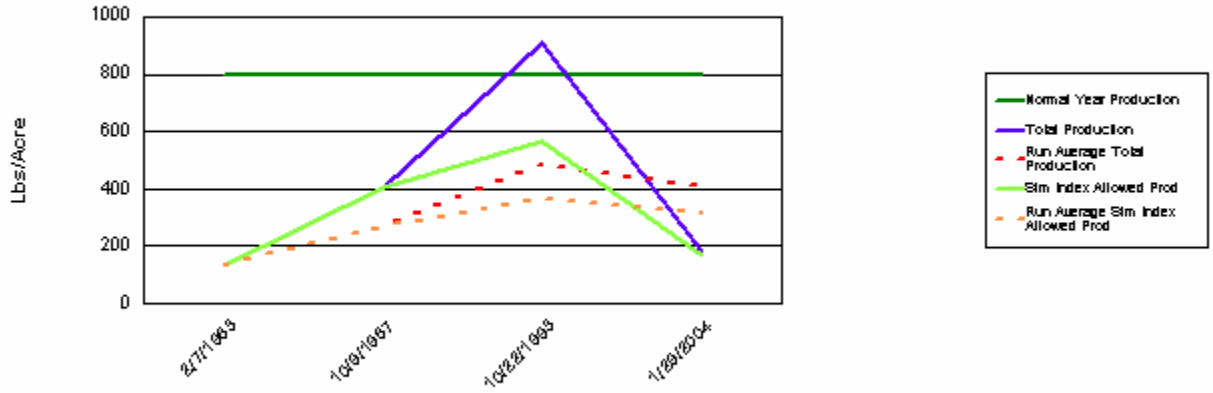
VEGID: 622

64054 E. H. CATTLE CO. 64054-#1-E101

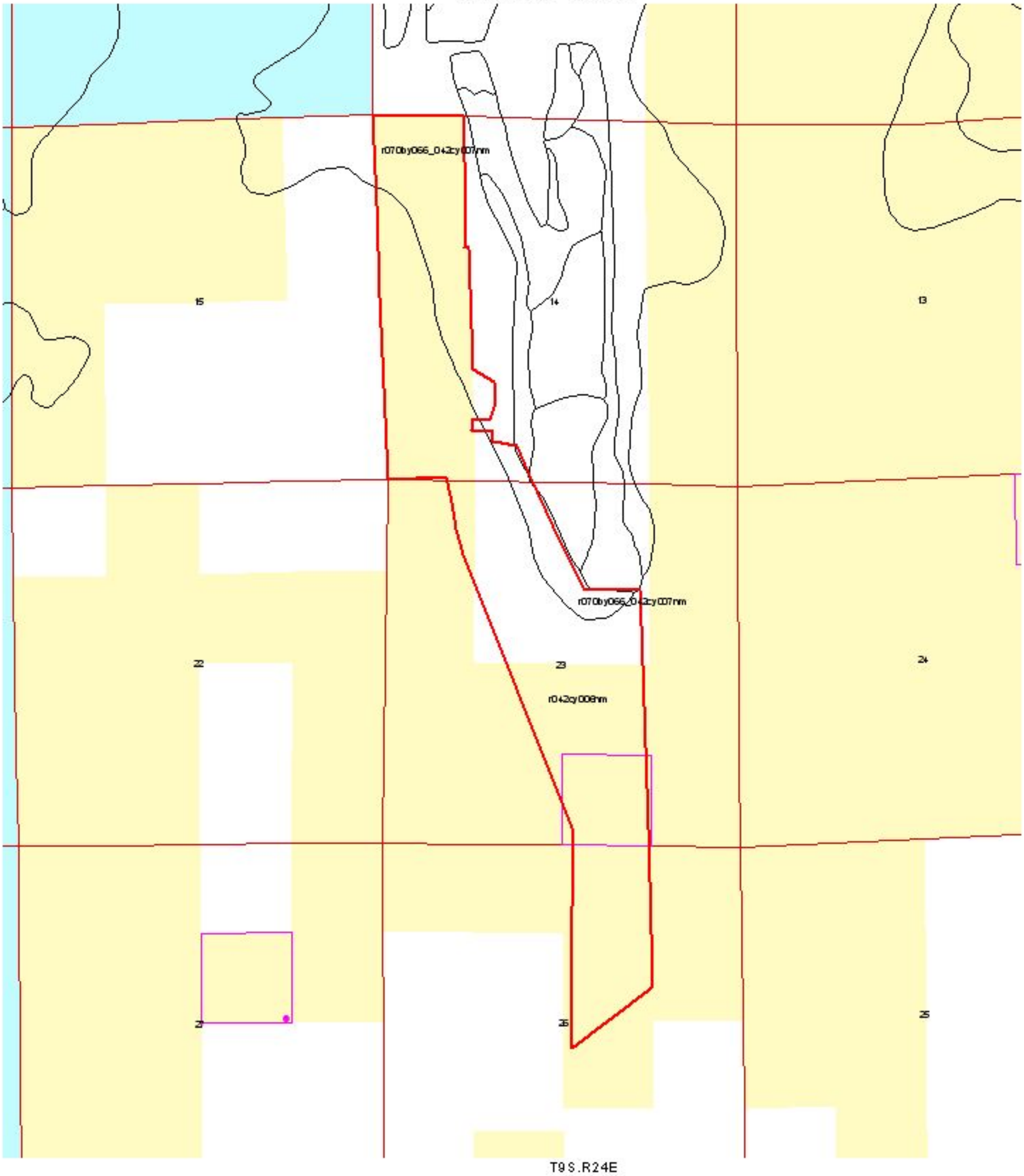
SALT FLATS SD-3 042CY036NM

Date	Range Cond.	Similarity Index	Normal Year Production	Total Production	Running Average Production	Sim Index Allowed Production	Running Average Sim Index Allowed Production
02/07/1983	67.41	16.50	800	132.00	132.00	132.00	132.00
10/09/1987	63.00	50.38	800	403.00	267.50	403.00	267.50
10/22/1993	69.00	70.50	800	911.00	482.00	564.00	366.33
01/29/2004	71.44	42.28	800	179.17	406.29	169.10	317.03

Production Data For Study Site



Rangeland Health Assessment
Ecological Sites
Allotment - 64054



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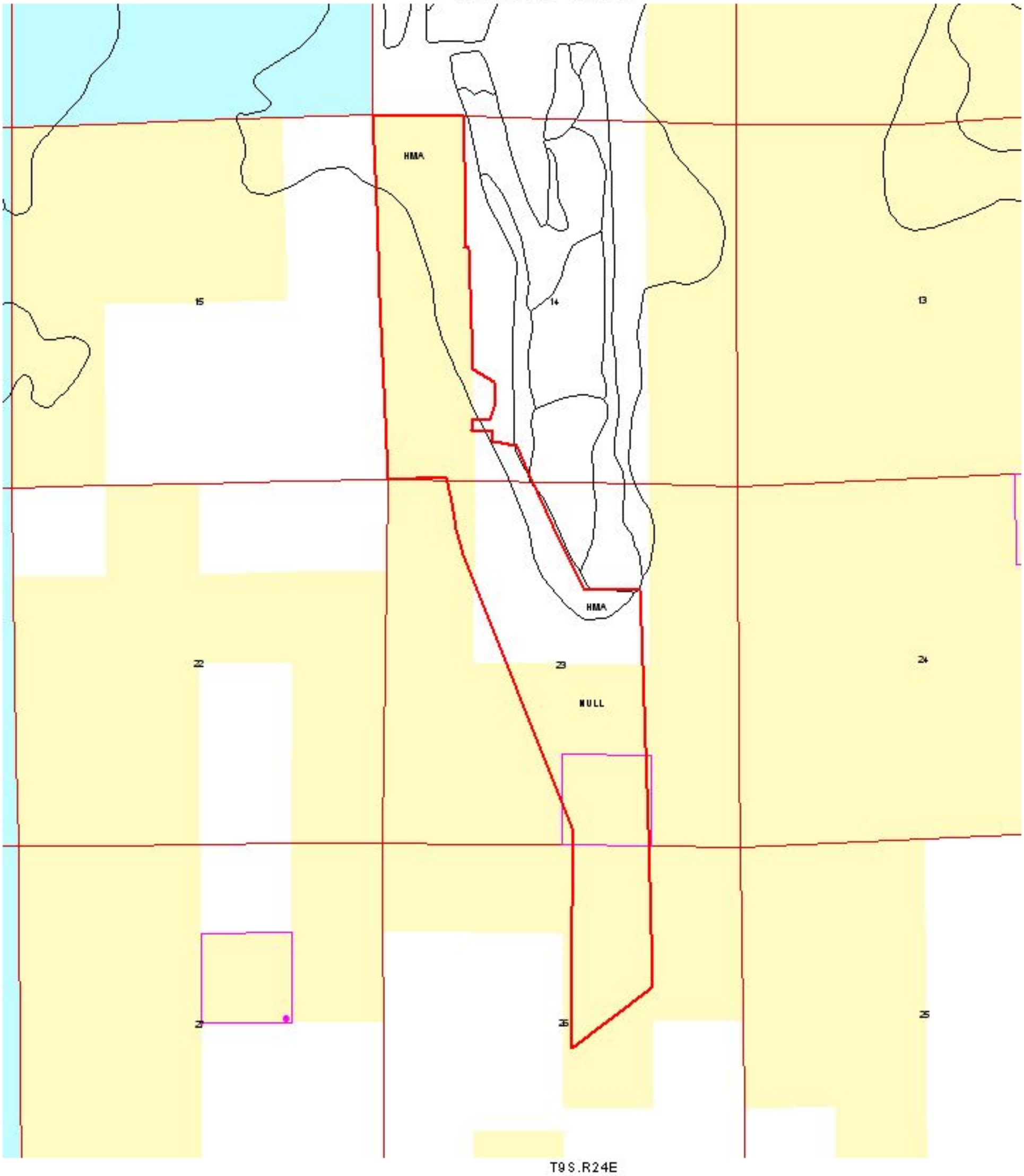
Rangeland Health Assessment
Soil Mapping Units
Allotment - 64054



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